

Maine School Administrative District 40 (MSAD 40)

The district is located in mid-coast Maine approximately 60 miles north of Portland along the Muscongus Bay. The school district is comprised of one high school, two schools for grades 7 and 8 (located in Union and Waldoboro), and five elementary schools (one located in each of the five municipalities).

MSAD 40	Town	Students (2001)
Warren Community School	Warren	346
Union Elementary	Union	160
Miller School	Waldoboro	407
Prescott Memorial School	Washington	103
Friendship Village School	Friendship	99
A.D. Gray Middle School	Union	173
D.R. Gaul Middle School	Waldoboro	218
Medomak Valley High School	Waldoboro	743

The District population in 2000 was 13,468 and individual town populations range from approximately 1,000 to just over 5,000, with Waldoboro serving as the regional center and adjacent Warren hosting the administrative offices of the district.

The district is bisected by two east-west, high volume rural arterials (US 1 and ME 17) which although they have wide paved shoulders do not encourage bicycling or walking for children because of the high speed of traffic. There is no major north-south route through the district; there are a variety of rural collectors and town roads that traverse the district. None of these roads have paved shoulders and all are windy and hilly which discourage bicycling and walking due to the limited width and poor sight distances.

The district provides school bus service irrespective of distance.



Medomak Valley High School



Western access drive to High School (12 ft travel lanes; no paved shoulders and no sidewalks exist on any entrance routes to the school)

Description:

Medomak Valley High School is the regional high school for MSAD 40. It is located on Manktown Road off US 1 in Waldoboro near Warren. Because the school is not located near any of the village residential centers of the district, walking distances would be prohibitive for all but a few. Bicycling is difficult for most because of distance and a reluctance to use Rt. 1. Bicycling would be possible for students in north Waldoboro who could access the school through local roads and Manktown Rd.

Survey:

Nearly all (540) of the 600 students who attended the high school in Fall 2001 completed the Safe Ways to School survey. The students themselves completed the surveys.

Student Proximity (home-school) Medomak Valley Regional High School

Within 1 mile	Within 3 miles	Within 5 miles	> 5 miles
3%	11%	31%	69%

Student Regular Mode of Access to Medomak Valley High School¹

Walk	Bicycle	School Bus	Private Auto	Carpool
1%	0%	42%	43%	6%

Only three (3) percent of Medomak Valley High students live within one mile of the school and 69% live over 5 miles from school.

The vast majority of attendees use motorized forms of transport to access the school. On the actual day of the school classroom count, 43% of the students arrived at school by bus and 57% reported coming in a non-school bus vehicle (autos). It should be noted that the carpool rate of 6% was one of the highest in the study – representing students who carpool together in a privately owned vehicle.



Sidewalks in bus loading area along main school entrance

¹ Results for those who stated they travel by each mode five days per week. Totals add to 92 percent. The remaining 8 percent travel to school via different modes during each week.



The parking area at the High School is an unfriendly zone for pedestrians – especially at the end of the day.



Although 16% and 18% responded that it was “reasonable” to walk or bike to school in the fall, students do not currently seem to follow through by actually biking or walking to school. Excluding the weather, the most commonly cited the reasons for not walking or biking to school were:

- -too far to walk/bike
- too much to carry
- being able to sleep later
- lack of sidewalks

Only 19% of the students cited concerns about traffic safety as the reason for not walking or biking to school.

In response to bus ridership, students cited several changes which might encourage them to ride the bus instead of driving:

- The rides were shorter
- The bus was less crowded
- The bus came later
- Better discipline on the bus

Challenges:

Obviously, distance from school, the perception of biking and walking being undesirable and the predominance of private auto use make bicycling and pedestrian promotion difficult at the high school.

Traffic safety concerns were noted at Manktown Rd and US 1 as well as a lack of safe walking zones and crosswalks on Route 1 – again Moody’s Diner and Route 90 intersections were cited.

Recommendations:

In general the access roads and parking areas are congested at peak hours. To encourage biking and walking, the school should provide basic facilities including bike racks and lockers, sidewalks and crosswalks. Incentives aimed at teenagers should be developed to encourage biking and walking.

A trial bike-to-school program could be initiated with students who live in North Waldoboro

General Issue:

The approach roads also highlight one of the regional and statewide challenges to bicycling and walking – regional connector roads with high volumes of traffic and little or no shoulders, sidewalks or formal street crossings.

Miller School - Waldoboro



Entrance at Miller School. Roadway shoulders and sidewalks are present within 1/4 mile of the school from the south and east.



Description:

The Miller School is the K-6 school for the Town of Waldoboro. It is located on Kaler’s Corner Road approximately 1/2 mile from US 1. Approximately 400 students were enrolled in 2001.

The school is located somewhat outside the village center of Waldoboro although there are a number of children who live within a reasonable walking distance. Waldoboro is the most populous community in the district and is characterized by a strong village center. The town and its two schools, however, are bisected by three state highways (Rts. 1, 32, and 220) that make bicycle and pedestrian movement challenging

Surveys:

About 135 completed surveys were collected from the school in fall 2001, - a 46 percent response rate. Parents completed nearly all of the surveys.

Student Proximity (home-school) Miller School, Waldoboro

Within 1 mile	Within 3 miles	Within 5 miles	> 5 miles
19%	40%	65%	34%

Student Regular Mode of Access to Miller School, Waldoboro ²

Walk	Bicycle	School Bus	Private Auto	Carpool
2%	0%	68%	16%	1%

² Results for those who stated they travel by each mode five days per week. Totals add to 87 percent. The remaining 13 percent travel to school via different modes during each week.



Route 32 at School entrance toward US 1



Route 32 approaching the school from the north lacks paved shoulders and sidewalks.



Route 32 and Mill St at Medomak Variety



End of sidewalk across from school entrance

Over two thirds of Miller School students travel to and from school on a school bus. Only 2 percent of students walk to school every weekday. One other student reported walking infrequently to school, and no students reported biking to the Miller School.

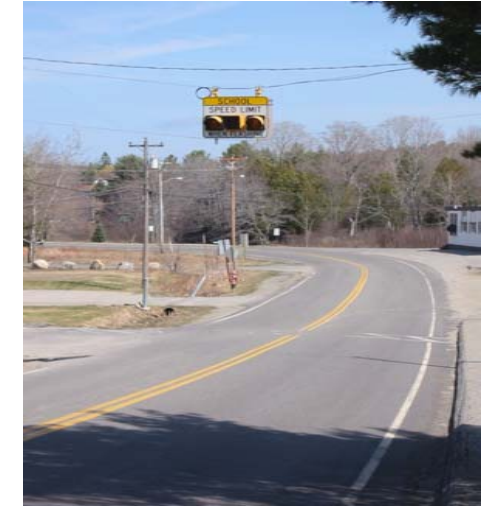
Respondents expressed concern about the US 1 and ME 32 intersection less than 1/8 mile away – which is not connected via sidewalk.

Fifty seven (57) percent of respondents (parents) are concerned about traffic safety along the routes to the Miller School. Ninety-two (92) percent of parents do not allow their children to bicycle or walk to the school, although the majority are well aware of the benefits of walking and bicycling.

The most common reasons cited for students not bicycling or walking to school are:

- too far to walk/bicycle
- traffic too heavy
- streets unsafe
- sidewalks inadequate
- child too young

Parents also overwhelmingly (88%) felt the overall reason their child did not walk or bike to school was the distance followed by weather and too much to carry.



A four foot wide sidewalk and 3 foot wide shoulder are provided in the immediate school vicinity, but they are not connected to other facilities



Immediate streetfront of school features raised sidewalks and shoulders; however, storm grates cause a hazard for cyclists.

Challenges:

Sidewalks on Mill St. and Main St. connect well to the village from the south and west. Students who live to the north of the school have a much greater challenge. There are no sidewalks on Miller St. (Rt. 32) north of the school and the pedestrian crossing of Rt. 1 at Rt. 32 and Depot St. is very challenging.

In general, Route 32, on which the school is located, was viewed as narrow, curvy and lacking adequate paved shoulders. When combined with the proximity to US 1, parents see the school as being unfriendly to biking and walking.

Recommendations:

Sidewalk extensions on Miller St. (Rt. 32) from the school to Rt. 1, and Friendship St. (Rt. 220) south of the village have been identified by the Town as the main gaps in the sidewalk network. With sidewalks on Miller St., a pedestrian crossing signal at Rt. 1 and Rt. 32 might be warranted. A safer pedestrian crossing at Depot St. and Rt. 1 is also needed. A walking school bus program is recommended for the younger grades

Sidewalks were the most commonly requested improvement to encourage walking as well as crossing guards and slower traffic. Adequate shoulders/bike paths and slower traffic were seen as the best improvements for cycling. Slowing traffic, especially in the vicinity of the school, was also suggested.

We noted potential extensions of the sidewalk and shoulder system towards Route 1 and also north onto Mill Street towards the town center, which has some existing sidewalk and shoulders. Fog lines exist on the local street system.

Friendship Village School



School Street approaching Bradford Street. There are no pavement markings.

Description:

The Friendship Village School is located on School Street immediately behind the junctions of Route 97, Route 220 and Harbor Road. The town center of Friendship is at the end of the peninsula, and features a library, post office and recreational fields connected by sidewalks and informal paths. Within the village of Friendship, speed limits are reduced and some paved shoulders exist. However, immediately outside the village, Rts. 97 and 220 have no shoulders or sidewalks and fast-moving traffic.

Surveys:

Approximately 100 students were enrolled in 2001. The 67 surveys received represented a very high response rate. All of the surveys were completed by parents.

Student Proximity (home-school) Friendship Elementary School

Within 1 mile	Within 3 miles	Within 5 miles	> 5 miles
40% *	71%	92%	8%

Student Regular Mode of Access to Friendship Elementary School,³

Walk	Bicycle	School Bus	Private Auto	Carpool
5%	2%	48%	17%	0%

*This is the highest percentage of students in close proximity and the highest rate of regular walking and biking in SAD 40. Excluding the High School, Friendship School has the lowest percentage of bus riders.

³ Results for those who stated they travel by each mode five days per week. Totals add to 72 percent. The remaining 27 percent travel to school via different modes during each week.



Friendship Corner – Route 97 and 220 looking north.



Harbor Road intersection in town center. The school is to the left behind the library. The streets are low volume and have 12-foot or wider travel lanes and paved shoulders.



South of town, Route 220 becomes narrow and windy with high speed vehicle travel.



Typical town road with paved shoulder and sidewalk separated from the travel lane by solid white edge line.

Sixty-one (61) percent of respondents (parents) are concerned about traffic safety along the routes to the Friendship School. Seventy-seven (77) percent of parents do not allow their children to bicycle or walk to the school. This is the lowest rate of prohibition in the SAD 40. The parents also rate the benefits of walking/bicycling (including health and socialization) very highly.

The most common reasons cited for students not bicycling or walking to school are:

- too far to walk/bicycle
- streets unsafe for bicycling
- traffic too heavy
- sidewalks inadequate
- child too young

Over 20% of parents felt their child could reasonably walk or bike to school in the fall - again this is the highest rate in SAD 40. Slowing cars down (45%) followed by improvement or construction of sidewalks (39%) and accompaniment by parents (36%) and road shoulder improvements (31%) were the most commonly requested improvements which would encourage walking and bicycling to school.

Traffic and safety concerns cited by parents included speeding traffic on several streets including Route 97 and Shipyard Road, as well as speed and narrow lanes/alignment of Route 220 into town.

Shipyard Road and School Street were cited as safety concerns along with the need for increased enforcement of stopping at stop signs in the town. At the public meeting in February there was a request for improved crosswalks downtown [pavement markings were worn and crosswalks were poorly signed], as well as improved coordination with MaineDOT to ensure that the Main Street through town is not seen as a thru-way of two state highways. Parents expressed concern that widening state roads could increase speeds.



Path behind Library to School – a shortcut from Harbor Road to the school



Undefined asphalt intersection at Shipyard Street and Community Center.



Bicycle rack outside Friendship School

Challenges:

Because Friendship School is located near major state routes, improvements to the bicycling and walking environment are beyond the responsibility of the Town of Friendship and within the domain of the Maine Dept. of Transportation. The challenge will be to add sidewalks and paved shoulders where needed without increasing traffic speed through the village.

Recommendations:

Friendship school is the best candidate for developing walking and bicycling to school programs. The accompaniment and involvement of adults should be enough to overcome the barriers perceived in the village of fast traffic and no sidewalks. Better enforcement of motor vehicle speeds by the Knox County Sheriff is needed.



Downtown Friendship –shoulders and sidewalks, functional if not defined.

Union Elementary and Gaul
Middle School



Entrance view from Heald Highway.



Description:

The Union Elementary and D. R. Gaul Middle School are co-located on Route 17 in Union, Maine. The D.R. Gaul Middle School serves students from Warren, Union, and Washington. School enrollment was estimated at 160 students (K-6) in the Union School and 218 students (7-8) in the Gaul School.

The schools are located about one mile outside of Union village on a high-speed, high-volume highway. Despite the presence of wide paved shoulders, the highway is a deterrent to walking and bicycling to school. The schools feature a single access driveway, although there is an unimproved path through the adjacent woods toward Thompson’s Corner. Locally, there has been discussion about upgrading these trails.

Survey:

140 completed surveys were received from both schools combined with just under a 50% response rate from each school. Parents completed nearly all of the surveys.

Student Proximity (home-school) Union and Gaul Middle Schools

	Within 1 mile	Within 3 miles	Within 5 miles	> 5 miles
Union	20%	58%	83%	17%
Gaul Middle	2%	23%	42%	58%



Route 17 typical shoulders in the vicinity of the school. The road serves high speed mixed traffic



Route 17 from the school entrance road has adequate shoulders, but traffic volumes and speeds make this route difficult for cyclists and walkers.

Student Regular Mode of Access to Union and Gaul Middle Schools⁴

	Walk	Bicycle	School Bus	Private Auto	Carpool
Union	0%	0%	67%	22%	2%
Gaul Middle	0%	0%	81%	6%	0%

The majority of parents in both schools felt that it was unreasonable for their children to walk or bicycle to school in the fall - 92% and 88% respectively for the Union Elementary and 92% and 83% for the Gaul School. At the Union school, parents were concerned with the appropriateness of the younger children using the streets due to traffic volumes, vehicle speeds and distance. Distance and similar concerns about traffic volumes, speed and lack of sidewalks were most frequent reasons for not walking/cycling cited by Gaul respondents. Over 73% of Union respondents cited general concerns about traffic safety. Clearly, the site selection process for this school did not put much weight on non-motorized access.

Challenges and Recommendations:

In general, the consensus of survey respondents and attendees at the February meeting was that Route 17 was not appropriate for cycling or walking. The road is a heavily traveled primary arterial with high speed traffic. Problem intersections and adverse roadway conditions cited were numerous. There was support for town funding and completion of the planned trail from the school to Thompson Center – for both students and general community access. This was suggested as part of a regional system of improvements. Advocacy for the trail is a sign of future support for biking and walking at the schools. Parents also cited a need for more efficient (shorter) bus trips to encourage greater ridership.

⁴ Results for those who stated they travel by each mode all five days per week. Totals add to < 100 percent. Balance percentages travel to school via different modes during each week.

**Prescott Memorial School –
Washington**



Prescott School driveway and sidewalks

Description:

The Prescott Memorial Elementary School is the K-6 school for the Town of Washington, a small community characterized by dispersed rural development without a definite village center. The school is located on Rt. 220 near the intersection of Rt. 105 - both rural collector highways with no paved shoulders.

Surveys:

Approximately 100 students were enrolled in fall 2001. Fifty (50) surveys were completed, representing a 50 percent response. Parents completed all of the surveys. Only 10 percent of Prescott School students live within one mile of the school and another 35 percent live from 1 to 3 miles from school.

Student Proximity (home-school) Prescott Elementary School

Within 1 mile	Within 3 miles	Within 5 miles	> 5 miles
10%	45%	90%	10%

Student Regular Mode of Access to Prescott Elementary School,⁵

Walk	Bicycle	School Bus	Private Auto	Carpool
0%	2%	84%	0%	0%

⁵ Results for those who stated they travel by each mode five days per week. Totals add to 86 percent. The remaining 14 percent travel to school via different modes during each week.



Route 220 is a rural state highway with minimal (<1 foot) shoulders. The travel lanes are about 11 feet wide. The road features high speed traffic and a large percentage of trucks – including gravel trucks



School entrance looking north on Route 220

All but one respondent arrive at Prescott School in the fall by school bus or by private car. Only one respondent noted bicycling to school five days a week in the fall. Most respondents felt that bicycling or walking was inappropriate due to:

- too far to walk/bicycle
- streets unsafe for bicycling
- child too young
- insufficient crossing guards
- traffic too heavy

Given the lack of sidewalks and paved shoulders and the low number of students living close to the school, major increases in biking and walking rates are unlikely.

Challenges:

A school located on a rural collector with heavy truck traffic and no provision for bicycling or walking is a challenging environment to promote bicycling or walking to school.

Recommendations:

A walking school bus program for the small percentage of students who live within a reasonable walking distance. A sidewalk between the school and Rt. 105 would also encourage walking

General Issue:

Rural schools located on state highways with limited shoulders are not suitable environments for young student walkers or bikers. If schools are built outside of town centers on such regional routes, walking and biking to school becomes unrealistic- an unfortunate loss for student/community health .

AD Gray Middle School



Primary school entrance in parking lot



School driveway/entrance

Description:

The AD Gray Middle School is located on School Street near Waldoboro center and serves the towns of Waldoboro and Friendship. The school is located on a quiet street near the village center of Waldoboro. Despite this location, it has almost no walkers and bicyclists despite sidewalks on Main St. and Jefferson Street that are the main streets nearest the school. MSAD 40 has received a funding commitment from the Maine Dept. of Education to construct a new school. The prime location for the new middle school is within the same campus as Miller Elementary School. *There has been discussion of moving this facility across from the Miller School.*

Surveys:

Approximately 173 students were enrolled in 2001. Forty-six completed Safe Ways to School surveys were collected from the school in fall 2001, representing a relatively low response rate. Most of the surveys were completed by parents.

Student Proximity (home-school) AD Gray Middle School

Within 1 mile	Within 3 miles	Within 5 miles	> 5 miles
11%	28%	43%	57%

Student Regular Mode of Access to AD Gray Middle School,⁶

Walk	Bicycle	School Bus	Private Auto	Carpool
0%	0%	52%	27%	0%

⁶ Results for those who stated they travel by each mode five days per week. Totals add to 79 percent. The remaining 21 percent travel to school via different modes during each week.



School Street approach to AD Gray



Mill Street from school in Waldoboro



Jefferson Street, which has no paved shoulders and high speed traffic



Jefferson Street looking north/west toward Route 1

Eleven (11) percent of AD Gray Middle students live within one mile of the school and another seventeen (17) percent live from 1 to 3 miles from school. Fifty-seven (57) percent live more than five miles from the school building.

Although located in a quiet, downtown Waldoboro neighborhood, and on streets well suited for biking and walking, the school population does not regularly walk or bike to school. AD Gray features one of the lowest number of regular and intermittent cyclists and walkers of all the schools in SAD 40. This is due to the relatively high number of students living at a distance. The demographics and function of the school have obviously changed over its life. It no longer serves the neighborhood function it once did.

Many of the stated concerns relate to Route 32 and Jefferson Street, which lack paved shoulders, generally feature 12 foot wide travel lanes and frequently lack edge lines. Mixed vehicular traffic is perceived as speeding through the town. Additionally, the US 1 corridor is cited as a frequent concern, especially the intersections in proximity to Depot Street, Shop and Save and Moody's Diner. Numerous requests were made for crosswalks at these locations – for students and general public use.

Just under half (47%) of the respondents are concerned about traffic safety along local streets. Eighty-nine (89) percent of parents do not allow their children to bicycle or walk to the school – although approximately 17% find it to be a reasonable distance. In survey responses and in the February meeting, installation of paved shoulders on Routes 32 and 220 were frequently cited as necessities before cycling or walking could be considered. Many stated that separated trails would be necessary to encourage safe walking and biking. Additionally, winter snow encroachment was cited as further reducing the feasibility of the roads for walking and cycling.



US 1 in the vicinity of Moody's diner looking southbound.



US 1 in the vicinity of AD Gray School

Challenges and Recommendations:

US 1 was frequently cited as being in absolute need of safe, enhanced crosswalks, both at key intersections and activity centers such as the diner and shipping center. Participants at the February 2002 meeting noted ongoing lack of success in getting MaineDOT to install crosswalks on Route 1. The difficulty lies in *designing safe, and appropriate intersections to cross this major regional roadway*. This challenge must also be weighed against the perception of the road as a major divider.

When viewed in coordination with the Miller School, there are ongoing discussions of connectivity between the schools and recreation fields. The town might wish to consider a system, which links these facilities for provision of general public recreational use, as well as student safety.

Warren Community School



Bike parking at school entrance.



Crossing areas at school entrance

Description:

The Warren Community School is a newly constructed facility located adjacent to the intersection of Route 90 and Route 131. Unlike the former elementary school that was situated within the quiet streets of Warren village, the new school is located on the opposite side of Rt. 90 from the village area. Rt. 90 is a high speed, high-volume rural arterial and the Rt. 131 intersection does not have any traffic signalization.

Surveys:

Approximately 350 students attended this K-6 school in Fall 2001. About 121 surveys were completed, which is a 35 percent response rate. Parents completed nearly all of the surveys.

Student Proximity (home-school) Warren Community School

Within 1 mile	Within 3 miles	Within 5 miles	> 5 miles
20%	52%	80%	21%

Student Regular Mode of Access to Warren Community School ⁷

Walk	Bicycle	School Bus	Private Auto	Carpool
3%	0%	68%	20%	0%

⁷ Results for those who stated they travel by each mode five days per week. Totals add to 91 percent. The remaining 9 percent travel to school via different modes during each week.



Route 131 in front of school. No paved shoulders and sharp curve on approach to Route 90.



72-ft wide entrance to Warren School with no lane markings or shoulder



Students walking along Route 131
toward the Route 90 intersection.

The most common reasons cited for students not bicycling or walking to school are:

- too far to walk
- traffic too heavy
- streets unsafe for bicycling
- child too young

Challenges and Recommendations:

The vast majority of students use motorized forms of transport to access the school. Many of the walkers must cross Route 90, where a crossing guard formerly was stationed. This intersection generated the most discussion of any site in SAD 40. Additionally, Route 131 in the vicinity of the school was noted as lacking shoulders or sidewalks and the 90-degree curve between the school and Route 90 decreased walking safety as well. (see next page)

Less than 10% of respondents felt it was reasonable to walk/bike to school in the fall. This was echoed by seventy-three (73) percent of respondents (parents) being concerned about traffic safety along the routes to the school. Ninety-six (96) percent of parents do not allow their children to bicycle or walk to the Warren School, the highest rate of K-8 students not permitted to walk to school in SAD 40.

The intersection of Routes 90 and 131 was recently widened to include the light gray areas (see page 4-20). The crosswalk on Route 90 was lengthened from 51 to 85 feet. This “improvement” has worsened the situation for crossing school children because of the increased crossing distance. High visibility paint has recently been applied to the crosswalk. In summer 2003, a traffic signal is scheduled for installation at this intersection. This will significantly improve the ability of children to walk across this intersection though they will still have to be aware of the considerable turning traffic from Rt. 131.

Over one third of respondents cited the Route 90/Route 131 intersection as a prime reason for not allowing their students to walk/bike to school. Additionally, there was concern expressed about the lack of shoulders and vehicle speeds on Route 131.





Crossing Route 90

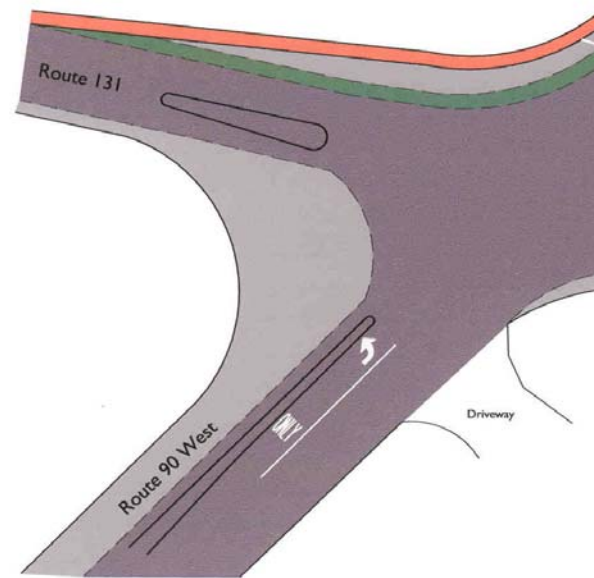


Student Crossing Route 90



A new crossing guard for the Rt. 131 and Rt. 90 intersection is not recommended. Instead it is recommended that walking school bus programs be developed through the Warren village area and the adults leading the school bus be trained in escorting small groups of children across Rt. 90.

Shoulder paving on Rt. 131 north of the school will provide possible bicycle access – this should be accompanied by traffic calming and improved signage for motorists.



Students reach the far side of Route 90 and walk home on quieter streets.

